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SINGLE GATE OXIDE DIFFERENTIAL RECEIVER AND METHOD

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Abstract Of The Invention

An integrated differential receiver includes a single gate oxide differential receiver and an associated switchable voltage supply circuit. The integrated differential receiver determines the desired receiver supply voltage and selects a supply voltage for the single gate oxide differential receiver. When a lower supply voltage is determined as the desired supply voltage, the integrated differential receiver automatically provides a supply voltage to the single gate oxide differential receiver with a voltage higher than the I/O pad supply voltage and higher than the maximum input signal voltage to increase the speed of operation for the differential receiver. The switchable voltage supply circuit is operatively responsive to a control signal which indicates the desired supply voltage for the I/O pad. In one embodiment, both the single gate oxide differential receiver and the switchable voltage supply circuit are single gate oxide circuits.